UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/595,473	KELLER ET AL.
	Examiner	Art Unit	
	ASHLEY D. TURNER	2454	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _06 October 2008_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-16_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-16_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _4/21/2006_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Champagne (US 7,310,730 B1) in view of Putzolu (US 6,359,902 B1).

Regarding claim 1

Referring to claim 1 Champagne discloses a method in an intermediate node

comprising a multicast/broadcast server and a streaming node for providing multicast

for streaming transmission from a streaming server to users of a multicast group with

the multicast/broadcast server providing multicast transmission and with the streaming

node providing a streaming transmission based on an on-demand single –user

signaling supporting the transmission of a streaming flow, the method comprising the

steps of (Abstract: A method of communicating an encrypted data broadcast to a

plurality of virtual private network receivers is disclosed. A first communication channel

is established between a first one of the receivers and a network node. A private data

stream is communicated to the first receiver on the first channel. A request is received

from the first receiver to join a broadcast data stream that is directed to a plurality of

receivers by a broadcast server. A second encrypted communication channel is

established between the first receiver and the network node for purposes of carrying the

broadcast data stream. Decryption information, which the first receiver can use to

decrypt information that is sent on the second channel, is sent to the first receiver

through the first channel. The broadcast data stream is then communicated to the first

receiver on the second channel. As a result, a particular receiver can receive an

encrypted broadcast that is encrypted as part of a single session for a large plurality of

other receivers, without impacting separate, private encrypted communications

conducted by the particular receiver.) (Col. 6 lines 8-18 In block 306, a request from the

first receiver to join a broadcast is received. The request may be an HTTP or RTSP

request. For example, network node 202 receives a request from VPN client 214B to

join a broadcast data stream originating at broadcast server 102. VPN client 214B may

provide the request to the network node 202 by relaying a selection of a link or UR-L

associated with broadcast server 102 that is made by an end user at personal computer

116B. In this context, a "broadcast" or "broadcast event" refers to an event that ideally is

multicasted, such as live streaming audio, video streaming, etc.) and (Fig. 2):

establishing a bearer for a multicast transmission according to the requirements for

streaming transmission (Col. 7 lines 11-22 In one particular approach, the broadcast

event is unicast to each receiver using IPSec for encryption on the broadcast channel.

Alternatively, the broadcasted event can be transmitted using generic routing

encapsulation (GRE). In this approach, the broadcast server 102 communicates the

broadcast using multicast to all elements of LAN 104 or network 108 that support

multicast, and uses unicast GRE tunnels for communication to clients through elements

that do not support multicast. In this approach, for efficiency, the network element that

originates the unicast streams could cache the broadcast stream.), establishing a multi-

user streaming session on the bearer by translating the on – demand (e.g. Video –On-

Demand) single –user signaling received from the streaming server into multi-user push

signaling (Col. 7 lines 33-36 In this environment, the ISP could store the broadcast

event as a confidential file in a cache local to a particular set of users. Such users then

could retrieve, as Video-On-Demand, the broadcast event stored in the cache, which

would be sent by unicast to the users.). Champagne did not discloses adapting the

received streaming flow to the multicast transmission according to the needs of a

multicast group or subgroup of a multicast group, replicating the received streaming

transmission according to the number of the multicast subgroups. The general concept

of adapting the received streaming flow to the multicast transmission according to the

needs of a multicast group or subgroup of a multicast group, replicating the received

streaming transmission according to the number of the multicast subgroups is well

known in the art as taught by Putzolu. Putzolu discloses **adapting the received**

streaming flow to the multicast transmission according to the needs of a

multicast group or subgroup of a multicast group, replicating the received

streaming transmission according to the number of the multicast subgroups..

(Col. 2 lines 19-35 At any given time, several multicast transmissions may be in

progress, the different multicast transmissions being distinguished, for example, by the

different destination IP addresses that identify each transmission. Each multicast

transmission may be described as a "multicast or multicast group channel." In order to

allow users to select which multicast group to receive, a "Session Description Protocol"

(SDP) message is sent over the network. The SDP message includes basic information

about the multicast program, such as the title, time and location of various multicast

being provided over the network. The end-user may then "tune in" to the desired

multicast group using the information provided by the SDP message. The SDP

transmissions are typically low-bandwidth uncompressed messages which can be

accessed by most contemporary workstations operating in conjunction with even low-

bandwidth network connections.) It would have been obvious to one of ordinary skill in

the art at the time of the invention to modify Champagne to include adapting the

received streaming flow to the multicast transmission according to the needs of a

multicast group or subgroup of a multicast group, replicating the received streaming

transmission according to the number of the multicast subgroups in order to provide any

bandwidth or delay guarantees

Regarding claims 15 and 16

Claims 15 and 16 are similarly rejected using at least the same reasoning /citations

provided for claim 1 since they recite the same limitations and are distinguished only by

statutory category.

Regarding claim 2

Referring to claim 2 Champagne and Putzolu discloses all the limitations of claim 2

which is described above. Champagne also discloses further comprising the step of the

streaming node communicating with the server adapts the streaming transmission and

forwards the adapted streaming transmission to the multicast/ broadcast server (Col. 7

lines 11-22 In one particular approach, the broadcast event is unicast to each receiver

using IPSec for encryption on the broadcast channel. Alternatively, the broadcasted

event can be transmitted using generic routing encapsulation (GRE). In this approach,

the broadcast server 102 communicates the broadcast using multicast to all elements of

LAN 104 or network 108 that support multicast, and uses unicast GRE tunnels for

communication to clients through elements that do not support multicast. In this

approach, for efficiency, the network element that originates the unicast streams could

cache the broadcast stream). Champagne did not discloses which replicates the

received streaming transmission among subgroups of a multicast group. The general

concept of replicates the received streaming transmission among subgroups of a

multicast group is well known in the art as taught by Putzolu. Putzolu discloses

replicates the received streaming transmission among subgroups of a multicast group.

(Col. 2 lines 19-35 At any given time, several multicast transmissions may be in

progress, the different multicast transmissions being distinguished, for example, by the

different destination IP addresses that identify each transmission. Each multicast

transmission may be described as a "multicast or multicast group channel." In order to

allow users to select which multicast group to receive, a "Session Description Protocol"

(SDP) message is sent over the network. The SDP message includes basic information

about the multicast program, such as the title, time and location of various multicast

being provided over the network. The end-user may then "tune in" to the desired

multicast group using the information provided by the SDP message. The SDP

transmissions are typically low-bandwidth uncompressed messages which can be

accessed by most contemporary workstations operating in conjunction with even low-

bandwidth network connections.) It would have been obvious to one of ordinary skill in

the art at the time of the invention to modify Champagne to include replicates the

received streaming transmission among subgroups of a multicast group in order to

provide any bandwidth or delay guarantees.

Regarding claim 3

Referring to claim 3 Champagne and Putzolu discloses all the limitations of claim 3

which is described above. Champagne also discloses the multicast/broadcast server i.e.

server 102 communicating with the server i.e. server 103 (Fig.2). Champagne did not

discloses replicates the received streaming transmission among the subgroups of a

multicast group and forwards each replicated streaming transmission to the streaming

node, which adapts each streaming transmission. The general concept of replicates the

received streaming transmission among the subgroups of a multicast group and

forwards each replicated streaming transmission to the streaming node, which adapts

each streaming transmission is well known in the art as taught by Putzolu. Putzolu

discloses replicates the received streaming transmission among the subgroups of a

multicast group and forwards each replicated streaming transmission to the streaming

node, which adapts each streaming transmission. (Col. 2 lines 19-35 At any given time,

several multicast transmissions may be in progress, the different multicast

transmissions being distinguished, for example, by the different destination IP

addresses that identify each transmission. Each multicast transmission may be

described as a "multicast or multicast group channel." In order to allow users to select

which multicast group to receive, a "Session Description Protocol" (SDP) message is

sent over the network. The SDP message includes basic information about the multicast

program, such as the title, time and location of various multicast being provided over the

network. The end-user may then "tune in" to the desired multicast group using the

information provided by the SDP message. The SDP transmissions are typically.low-

bandwidth uncompressed messages which can be accessed by most contemporary

workstations operating in conjunction with even low-bandwidth network connections.). It

would have been obvious to one of ordinary skill in the art at the time of the invention to

modify Champagne to include replicates the received streaming transmission among

the subgroups of a multicast group and forwards each replicated streaming

transmission to the streaming node, which adapts each streaming transmission in order

to provide any bandwidth or delay guarantees.

Regarding claim 4

Referring to claim 4 Champagne and Putzolu discloses all the limitations of claim 4

which is described above. Champagne also discloses wherein a decision unit is

provided for deciding how the received streaming flow is to be directed in the

intermediate node. (Col. 7 lines 11-22 In one particular approach, the broadcast event is

unicast to each receiver using IPSec for encryption on the broadcast channel.

Alternatively, the broadcasted event can be transmitted using generic routing

encapsulation (GRE). In this approach, the broadcast server 102 communicates the

broadcast using multicast to all elements of LAN 104 or network 108 that support

multicast, and uses unicast GRE tunnels for communication to clients through elements

that do not support multicast. In this approach, for efficiency, the network element that

originates the unicast streams could cache the broadcast stream).

Regarding claim 5

Referring to claim 5 Champagne and Putzolu discloses all the limitations of claim 5

which is described above. Champagne also discloses wherein the streaming nodes

have different capabilities and the multicast/broadcast server knows the different

capabilities and addresses of the streaming nodes in order to select an appropriate

streaming node for performing an appropriate adaptation of the streaming flow. (Col. 7

lines 11-22 In one particular approach, the broadcast event is unicast to each receiver

using IPSec for encryption on the broadcast channel. Alternatively, the broadcasted

event can be transmitted using generic routing encapsulation (GRE). In this approach,

the broadcast server 102 communicates the broadcast using multicast to all elements of

LAN 104 or network 108 that support multicast, and uses unicast GRE tunnels for

communication to clients through elements that do not support multicast. In this

approach, for efficiency, the network element that originates the unicast streams could

cache the broadcast stream.) and (Col. 7 lines 58-62 In another approach, network

node 202 may maintain a table of network address of known nodes that send

broadcasts. Packets received at network node 202 are then examined and a lookup in

the table is performed to determine if a broadcast node is sending the packets).

Regarding claim 6

Referring to claim 6 Champagne and Putzolu discloses all the limitations of claim 6

which is described above. Champagne also discloses wherein in case a hierarchical

coding (e.g. encryption) is used the streaming flows are differentiated in sense that a

different number of layers is sent to different streaming nodes. (Col. 7 lines 47-57 In

block 406, a broadcast event is detected. For example, network node 202 detects that

broadcast server 102 has initiated a broadcast. Such detection may be performed using

several approaches. For example, if the broadcast server 102 is multicasting the

broadcast event, the network node may automatically detect that such an event requires

a common encryption scheme for all VPN users. Alternatively, if the broadcast server

does not use multicast, the VPN concentrator can detect that a broadcast event is

occurring from request information in the protocol layers of event packets above the IP

layer.) and (Col. 8 lines 33-41The strength of encryption performed by common channel

encryption engine 220D can vary. For example, the VPN concentrator can implement

policy-based encryption based on the Layer 3 or Layer 4 attributes of the traffic

generated by the broadcast server. As a specific example, network node 202 may

examine the type of request received from the VPN client 214B and determine that for a

phone conference meeting, 64-bit encryption is used, whereas for a company all-hands

meeting, 128-bit encryption is used, etc.)

Regarding claim 7

Referring to claim 7 Champagne and Putzolu discloses all the limitations of claim 7

which is described above. Champagne also discloses wherein the intermediate node

administrates an address identifying the streaming flow arriving from the server. (Col. 7

lines 47-57 In block 406, a broadcast event is detected. For example, network node 202

detects that broadcast server 102 has initiated a broadcast. Such detection may be

performed using several approaches. For example, if the broadcast server 102 is

multicasting the broadcast event, the network node may automatically detect that such

an event requires a common encryption scheme for all VPN users. Alternatively, if the

broadcast server does not use multicast, the VPN concentrator can detect that a

broadcast event is occurring from request information in the protocol layers of event

packets above the IP layer.) and (Col. 7 lines 58-62 In another approach, network node

202 may maintain a table of network address of known nodes that send broadcasts.

Packets received at network node 202 are then examined and a lookup in the table is performed to determine if a broadcast node is sending the packets).

Regarding claim 9

Referring to claim 9 Champagne and Putzolu discloses all the limitations of claim 9 which is described above. Champagne did not discloses wherein the intermediate node receives a session description message informing about the transmission parameters required for the streaming session and said intermediate node changes the received parameters according to the needs of the subgroups that receive a dedicated replicated stream and sends the changed parameter to the group members by means of the multi-user push signaling message. The general concept of wherein the intermediate node receives a session description message informing about the transmission parameters required for the streaming session and said intermediate node changes the received parameters according to the needs of the subgroups that receive a dedicated replicated stream and sends the changed parameter to the group members by means of the multi-user push signaling message is well known in the art as taught by Putzolu. Putzolu discloses wherein the intermediate node receives a session description message informing about the transmission parameters required for the streaming session and said intermediate node changes the received parameters according to the needs of the subgroups that receive a dedicated replicated stream and sends the changed parameter to the group members by means of the multi-user push signaling message.

(Col. 2 lines 19-35 At any given time, several multicast transmissions may be in progress, the different multicast transmissions being distinguished, for example, by the different destination IP addresses that identify each transmission. Each multicast transmission may be described as a "multicast or multicast group channel." In order to allow users to select which multicast group to receive, a "Session Description Protocol" (SDP) message is sent over the network. The SDP message includes basic information about the multicast program, such as the title, time and location of various multicast being provided over the network. The end-user may then "tune in" to the desired multicast group using the information provided by the SDP message. The SDP transmissions are typically low-bandwidth uncompressed messages which can be accessed by most contemporary workstations operating in conjunction with even low-bandwidth network connections.) It would have been.obvious to one of ordinary skill in the art at the time of the invention to modify Champagne to include wherein the intermediate node receives a session description message informing about the transmission parameters required for the streaming session and said intermediate node changes the received parameters according to the needs of the subgroups that receive a dedicated replicated stream and sends the changed parameter to the group members by means of the multi-user push signaling message in order to provide any bandwidth or delay guarantees.

Regarding claim 10

Referring to claim 10 Champagne and Putzolu discloses all the limitations of claim 10

which is described above. Champagne did not discloses wherein nodes higher up in the

hierarchy are informed that the streaming flow is only to be forwarded to a single node

lower in the hierarchy by means of a new message being distribute along the multicast

delivery tree. The general concept of nodes higher up in the hierarchy are informed that

the streaming flow is only to be forwarded to a single node lower in the hierarchy by

means of a new message being distribute along the multicast delivery tree is well known

in the art as taught by Putzolu. Putzolu discloses nodes higher up in the hierarchy are

informed that the streaming flow is only to be forwarded to a single node lower in the

hierarchy by means of a new message being distribute along the multicast delivery tree.

(Col. 2 lines 19-35 At any given time, several multicast transmissions may be in

progress, the different multicast transmissions being distinguished, for example, by the

different destination IP addresses that identify each transmission. Each multicast

transmission may be described as a "multicast or multicast group channel." In order to

allow users to select which multicast group to receive, a "Session Description Protocol"

(SDP) message is sent over the network. The SDP message includes basic information

about the multicast program, such as the title, time and location of various multicast

being provided over the network. The end-user may then "tune in" to the desired

multicast group using the information provided by the SDP message. The SDP

transmissions are typically low-bandwidth uncompressed messages which can be

accessed by most contemporary workstations operating in conjunction with even low-

bandwidth network connections.). It would have been obvious to one of ordinary skill in

the art at the time of the invention to modify Champagne to include nodes higher up in

the hierarchy are informed that the streaming flow is only to be forwarded to a single

node lower in the hierarchy by means of a new message being distribute along the

multicast delivery tree in order to provide any bandwidth or delay guarantees

Regarding claim 11

Referring to claim 11Champagne and Putzolu discloses all the limitations of claim 11

which is described above. Champagne also discloses wherein the conversion between

single-user on-demand and multi-user push signaling implies that certain messages are

not propagated. (Col. 1 lines60-67 and Col 2 lines 1-4 Further, communicating

broadcast media information using a VPN tunnel may significantly reduce the amount of

bandwidth available to the VPN end user for other communications. Such end users

may need to perform other kinds of communication such as email, telnet sessions or

HTTP browsing using information that is specific to a particular end user. Because

broadcast media typically have high bandwidth requirements, communicating such

broadcasts on a large number of VPN sessions may exceed the maximum available

encryption throughput of the VPN device. As a result, end users may be unable to

communicate the user-specific information when a broadcast is in process).

Claims 12 ,13,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Champagne (US 7,310,730 B1) in view of Putzolu (US 6,359,902 B1) further in view of

Voit ().

Regarding claim 12

Referring to claim 12 Champagne and Putzolu discloses all the limitations of claim 12

which is described above. Champagne did not discloses wherein the replication of the

streaming flow is based on an access network, in which users are located or/ and on the

geographic area and /or on the Quality of Service a subgroup wishes for streaming

sessions. The general concept of the replication of the streaming flow is based on an

access network is well known in the art as taught by Voit. Voit discloses the replication

of the streaming flow is based on an access network, (Col. 25 lines 45 -56 and Col 26

lines 1-6 For a multicast service, such as the satellite-originated video broadcast

service, the service provider sends one stream through the vertical services domain

network 13 to the L3/4 ATM switch 19. The switch 19 will monitor every ATM virtual

circuit going to the subscribers, looking for IGNP requests. A subscriber sends an IGNP

request to join a selected multicast channel. When the L3/4 ATM switch 19 detects such

a request, it identifies the requested channel and the requesting subscriber equipment

and forwards a 'join' message to the vertical services domain. Subsequently, the switch

19 replicates received packets for the requested broadcast channel, and the switch

drops the replicated packets into the cells for each of the virtual circuits of all of the

joined subscribers, including the newly added subscriber. When the subscriber later

elects to end viewing of the multicast, the subscriber's equipment sends a `leave`

message, and the switch 19 stops adding the cells for the multicast to that subscriber's

virtual circuit)., in which users are located or/ and on the geographic area and /or on the

Quality of Service a subgroup wishes for streaming sessions (Col. 35 lines 33-51 FIG.

12 provides a flowchart that summarizes the steps taken by the CPE in forwarding

Ethernet frames to the ADN. In step 1202, an Ethernet frame is received at one of the

interface ports. The Ethernet frame encapsulates datagrams. Information related to an

upper-layer protocol is extracted, in step 1204, from the received frame. Examples of

such information include the destination IP address encapsulated within the Ethernet

frame. A set of rules (e.g., a routing table) is consulted to determine, in step 1206, what

ethertype encapsulation needs to be used based on the extracted upper-layer

information. Once the ethertype encapsulation method is identified, the datagram is re-

encapsulated, in step 1208, using the identified ethertype encapsulation method. Once

encapsulated, the frame, in step 1210, is forwarded upstream over the ADN. In

performing the forwarding step (step 1210) the CPE can also consult security access

control lists to identify permissible connections and sessions and block Ethernet frames

when appropriate. Similarly, the CPE can also perform the forwarding step in a manner

to ensure conformance with any QoS parameters associated with the upstream

bandwidth.). It would have been obvious of one of ordinary skill in the art at the time of

the invention to modify Champagne to include wherein the replication of the streaming

flow is based on an access network, in which users are located or/ and on the

geographic area and /or on the Quality of Service a subgroup wishes for streaming

sessions in order to provide any bandwidth or delay guarantees.

Regarding claim 13

Referring to claim 13 Champagne, Putzolu and Voit discloses all the limitations of claim

3 which is described above. Champagne also discloses wherein the intermediate node

requests the actual characteristics of the area in order to adapt the streaming flow

accordingly. (Col. 7 lines 11-22 In one particular approach, the broadcast event is

unicast to each receiver using IPSec for encryption on the broadcast channel.

Alternatively, the broadcasted event can be transmitted using generic routing

encapsulation (GRE). In this approach, the broadcast server 102 communicates the

broadcast using multicast to all elements of LAN 104 or network 108 that support

multicast, and uses unicast GRE tunnels for communication to clients through elements

that do not support multicast. In this approach, for efficiency, the network element that

originates the unicast streams could cache the broadcast stream).

Regarding claim 14

Referring to claim 14 Champagne and Putzolu discloses all the limitations of claim 3

which is described above. Champagne discloses wherein the intermediate node

provides additional information to the charging /billing server in order to guarantee an

accurate charging and /or multi-user streaming related charging. (Col.26 lines 35-52

Although IP-based, the services from the vertical services domain 13 may follow any

other desirable business model. For example, a multicast service provider may contract

with the carrier to provide multicast audio (radio-like) and/or video (TV-like) services via

the vertical services domain. The multicast service provider, not the subscribers, would

pay the carrier. The multicast service provider may offer any or all of the multicast

programming to customers on some type pay-per-view basis but would likely offer most

of the programming service for free or bundled in as part of some nominal monthly

subscription charge. The multicast service provider instead would charge advertisers in

a manner analogous to current broadcast business practices. Advertising distributed

with the IP multicasting, however, can be carefully targeted at end-customers having

demographic profiles meeting specific criteria specified by individual advertisers, which

allows the multicast service provider to charge premium advertising rates.) and (Col.26

lines 16-34 In an enhanced service offering, the broadcast provider could offer a

convenient navigation interface from a web server. The server could be on the vertical

services network, but preferably is on the wide area Internet 11. With a PPPoE session

active, the user can surf to the provider's server and view information about available

programming. The user might select a current broadcast program by `clicking` on a URL

link in the provider's web-based information. Although provided through the wide area

Internet 11, the URL would actually contain the private IP address for the desired

broadcast program available from the vertical services network 13. Selection of such a

URL therefore would generate a message to the appropriate server on the vertical

services network 11 to initiate the above discussed procedure to allow the user to 'join'

the selected broadcast. A similar methodology might also enable a provider to offer

menu, selection and order/billing services from the Internet 11, to provide pay-per-view

or video on-demand type services from the vertical services domain network 13). It

would have been obvious to one of ordinary skill in the art at the time of the invention to

modify Champagne to include the intermediate node provides additional information to

the charging /billing server in order to guarantee an accurate charging and /or multi-user

streaming related charging in order to provide any bandwidth or delay guarantees.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Champagne (US

7,310,730 B1) in view of Putzolu (US 6,359,902 B1) further in view of Cannon (US

6,014,706).

Regarding claim 8

Referring to claim 8 Champagne and Voit discloses all the limitations of claim 8 which is

described above. Champagne did not discloses wherein the intermediate node

receives a session description message informing about the transmission parameters

required for the streaming session and forwards the received parameters to the group

members by means of the multi-user push signaling message. The general concept of

wherein the intermediate node receives a session description message informing about

the transmission parameters required for the streaming session and forwards the

received parameters to the group members by means of the multi-user push signaling

message is well known in the art as taught by Cannon. Cannon discloses wherein the

intermediate node receives a session description message informing about the

transmission parameters required for the streaming session and forwards the received

parameters to the group members by means of the multi-user push signaling message

In a particularly advantageous embodiment, the fast forward stream is employed for fast

forwarding. The steps taken by the server to ascertain the first data packet of the fast

forward stream to send when transitioning from the real-time play mode (or other modes

except live play) to the fast forward mode are depicted in FIG. 8. In step 802, the server

seeks back in the fast forward stream from the video frame whose time corresponds or

most closely corresponds to the time parameter sent from the client to the server in step

502 for the first frame to be sent. Alternatively, the server may seek forward in the fast

forward stream from the video frame whose time corresponds or most closely

corresponds to the time parameter sent from the client to the server in step 502 for the

first frame to be sent. The fast forward stream, like the play stream, are stored in the

server as the recording session progresses as video files. It would have been obvious

to one of ordinary skill in the art at the time of the invention to modify Champagne to

include wherein the intermediate node receives a session description message

informing about the transmission parameters required for the streaming session and

forwards the received parameters to the group members by means of the multi-user

push signaling message in order to provide any bandwidth or delay guarantees.

Response to Arguments

Applicant's arguments filed on 10/06/2008 have been fully considered but they are

deemed moot in view of the new grounds of rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ashley d. Turner whose telephone number is 571-270-

1603. The examiner can normally be reached on Monday thru Friday 7:30a.m. -

5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nathan Flynn can be reached at 571-272-1915. The fax phone number for

the organization where this application or proceeding is assigned is 571-270-2603.

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you have questions on access to the Private PAIR system, contact the Electronic

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner: Supervisory Patent Examiner

_____   _____
Ashley Turner   Nathan Flynn

    Date: _____   Date: _____

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2454